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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/690,521

10/23/2003

Nakaba Tamura

117584

6377

25944 7590 06/14/2007  
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EXAMINER

NGUYEN, CAM N

ART UNIT

PAPER NUMBER

1754

MAIL DATE

DELIVERY MODE

06/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/690,521

**Applicant(s)**

TAMURA, NAKABA

**Examiner**

Cam N. Nguyen

**Art Unit**

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/23/07 (an amendment/response).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 2-5 and 8-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on originally filed is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### Response to Amendment

1. Applicants' amendments and remarks, filed on 3/26/07, have been made of record and entered. Claims 1 & 7 have been amended.

Claims 1-18 are currently pending.

### Status of Withdrawn (non-elected) Claim(s)

2. Claims 2-5 & 8-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention(s), there being no allowable generic or linking claim. Election was made without traverse in the reply filed on February 08, 2006.

### Claim Rejections - 35 USC § 102(b)

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 6, & 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Beauseigneur et al., "hereinafter referred to as Beauseigneur", (US Pat. 5,334,570).

Beauseigneur discloses a catalyst device comprising a porous catalyst support, the support consisting essentially of: a multichannel substrate having porous walls defining the channels and a network of open pores distributed through the walls, the walls containing

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washcoat particles bonded to the walls, all of which particles are of colloidal particle sizes in the range of about 0.001-0.1 micrometers and selected from the group consisting of alumina, rare earth oxide, silica, and zirconia, over 50% of the washcoat particles being deposited within the pores on the surfaces thereof substantially throughout the walls, any other portion of the washcoat particles being deposited on the external surfaces of the walls, and the washcoat particles not filling any microcracks in the walls (see col. 17, claim 1). See also col. 18, claims 2-14. The average diameter of the colloidal particles is in an approximate range of 1 to 100 nanometers (see col. 18, claim 15).

It is inherent that the disclosed catalyst support would have the “mesh cracks” as required in the instant claims 1 & 7 because it has the same structure including the claimed metal oxide materials and an average particle diameter range of 1-100 nm, which embraces the claimed range of 10 nm to 30 nm or 10 nm or more, as required in claims 6 & 7, respectively.

There is no patentable distinction seen between the claimed catalyst support and that disclosed by the reference. Thus, the claims are anticipated by the teaching of the reference.

5. Claims 1 & 7 are rejected under 35 U.S.C. 102(b) as being anticipated by European Patent (EP 0 736 503 A1), “hereinafter EP ‘503”.

EP ‘503 discloses an exhaust gas filter having a matrix with multiple pores and a coating layer provided on the surface of said matrix and the inner surface of the pores inside said matrix, supporting a catalyst, etc., said coating layer has communicating pores which communicate from its surface to the surface of the matrix or the inner surface of the pores inside

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the matrix, etc. (see col. 22, claim 15). The average pores size of said communicating pores is 10-60 um (see col. 22, claim 16).

With respect to the limitation on “mesh cracks”, it is inherent that the disclosed catalyst support would have the same properties as being claimed because it has the same structure including the same metal oxide materials as being claimed.

With respect to the claimed average pore diameter, it is considered the instant claimed average pore diameter is met by teaching of the reference since the instant claim 7 recites “10 nm or more”, which does not have a limit for the upper range.

#### **Response to Applicants' Arguments**

6. Applicants' response filed on March 26, 2007 has been fully considered, but not deemed persuasive in view of the new ground of rejection(s) and/or objection(s) above and the following reasons.

Applicants urged, that the previously applied references fail to teach or suggest a catalyst support material having “mesh cracks” in the support layer is noted. Applicants' further urging regarding the use of “acidic metal salt” to prepare the catalyst support has also been noted. However, they are not found persuasive because the instant claims are drawn to a product, and not a process of making. It is the catalytic structure of the disclosed catalyst support and the claimed catalyst support material should be compared including the comparative data and evidence or showing of the difference(s) between the catalytic structures. It is considered the disclosed catalyst support materials as described in the rejections above would inherently have

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the same properties "mesh cracks" in view of the same catalytic structure including the same metal oxide materials used, and the same average pore diameter range as being claimed.

**Citations**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. All references are cited for related art. See PTO-892 Form prepared attached.

**Conclusion**

8. Claims 1-18 are pending. Claims 1, 6, & 7 are rejected. Claims 2-5 & 8-18 are withdrawn due to nonelected (distinct) invention(s). No claims are allowed.

**Contacts**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cam N Nguyen, whose telephone number is 571-272-1357. The examiner can normally be reached on M-F, 9:00 AM - 6:30 PM, at alternative work site.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cam N. Nguyen/

Nguyen/cnn

Primary Examiner

June 08, 2007

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